



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/586,381	06/02/2000	David E. Green	2130	7037

25280 7590 09/10/2002

MILLIKEN & COMPANY  
920 MILLIKEN RD  
PO BOX 1926  
SPARTANBURG, SC 29304

EXAMINER

WACHTEL, ALEXIS A

ART UNIT	PAPER NUMBER
----------	--------------

1771

10

DATE MAILED: 09/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/586,381

Applicant(s)

GREEN ET AL.

Examiner

Alexis Wachtel

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5-29-2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 1771

***Detailed Action***

***Response to Amendment***

1. Applicant's amendment and accompanying Remarks filed on 5-29-2002 have been entered and carefully considered.

The amendment is insufficient to overcome anticipation rejections of claims 1-10 and 15-24.

***Claim Rejections - 35 USC § 102/103***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-10 and 15-24 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5,849,311 to Sawan et al.

Art Unit: 1771

Sawan et al discloses a contact-killing coating on a substrate (Col 4, lines 21-26) wherein the biocidal material used is of a metallic material, wherein the metallic material can be a metal, metal oxide, metal salt, metal complex, metal alloy or mixture (Col 3, lines 47-52). Metals that can be used include silver, zinc, cadmium, lead, mercury, antimony, gold, aluminum, copper, platinum and palladium, their salts, oxides, complexes, and alloys. (Col 3, lines 47-60). Said metallic material is in particulate form that is dispersed in an emulsion (Col 4, lines 1-5). Said metals constitute biocidal portion of contact-killing coating and typically comprise from about 0.005 to about 0.5% by weight of contact-killing coating. Said contact-killing coating can be used on wound dressing, personal hygiene products, household products, food preparation surfaces and packaging, water storage, treatment and delivery systems, biosensitive systems lab equipment (Col 12, lines 32-40) as well as surgical gloves (Col 1, line 67). Conventionally, wound dressings are woven or nonwoven fabrics, food packaging materials and surgical gloves are films and personal hygiene products such as diapers have non woven materials as well as film layers that could be coated with said contact-killing coating. Examiner notes that emulsion in which metallic material is dispersed effectively functions as a binder. Inherently, if contact-killing coating is applied to a woven or nonwoven, at least some yarns or fibers will be coated completely.

Although Sawan et al does not explicitly teach the claimed percentage of said coating remaining on substrate after 10 washes, electrical non-conductivity of metallic material used in coating, or claimed log kill rate, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the

Art Unit: 1771

use of similar materials (i.e. metallic biocidal suspension or coating wherein contact-killing biocidal metallic material typically comprises from about 0.005 to about 0.5% by weight of coating applied to a substrate) and in the similar production steps (i.e. coating said biocidal suspension to a substrate) used to produce the biocidal coated substrate. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594.

### ***Response to Arguments***

5. Applicant relies on a Declaration under 37.C.F.R. § 1.132 to overcome the rejections of claims 1-10, and 15-24. Applicant has relied on Example 3 of Sawan et al in order to complete a comparative experiment wherein the silver content of the coating disclosed by Sawan et al is evaluated for wash durability when applied to a fabric. Examiner notes that the wash durability of Sawan et al's coating inherently possesses the claimed properties of the instant Application. According to the supplied Declaration, the process of Sawan et al was used as per example 3 of Sawan et al's disclosure in order to apply a biocidal coating to said fabric. Applicant's results show that at most, about 25% of a silver containing biocidal coating remained on said fabric after being subjected to AATCC 130-1981 home wash testing protocols. The claims as amended require an amount of at least 50% of silver containing coating to be retained after being subjected to AATCC 130-1981 home wash testing protocols. Example 3 of Sawan et al's disclosure made use of a 0.05% solution of Ag/KI in conjunction with a base coating matrix to render said fabric antimicrobial. However, Examiner wishes to point out to Applicant that Sawan et al clearly enables a greater amount of Ag/KI to be used. In particular, silver solutions having a concentration from about 0.005 to about 0.5% are

Art Unit: 1771

identified as useful (Col 10, lines 55-60). Examiner wishes to point out that Sawan et al's disclosure is enabling for a silver amount that is 10 times greater than the amount used in Example 3 of Sawan et al's disclosure. Thusly, it cannot be said that the supplied Declaration under 37.C.F.R. § 1.132 overcomes the teachings of Sawan et al since the closest teachings found within the four corners of the Sawan et al reference have not been relied on or used in conducting an experimental comparison for the purposes of overcoming Examiner's inherency arguments. While Sawan et al may disclose more than what Applicant wishes to limit their claims to, the disclosure of Sawan et al clearly includes subject matter encompassed by the scope of the instant claims. Perhaps the claims should be amended to account for the claimed properties with more chemical and structural definition.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1771

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Alex Wachtel, whose number is (703)-306-0320. The Examiner can normally be reached Mondays-Fridays from 10:30am to 6:30pm.

If attempts to reach the Examiner by telephone are unsuccessful and the matter is urgent, the Examiner's supervisor, Mr. Terrel Morris, can be reached at (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700